

We claim:

1. A method for cutting a hollow extruded profile section into lengths in a press flow, wherein the extruded profile section, after discharge from a press, is bent simultaneously with or immediately after the forming extrusion process by a force acting on the extruded profile section at right angles to the extrusion direction, one component of the force acting as a tensile or compressive force on the cross-sectional face of the hollow profile section walls during the forming extrusion process, the method comprising the steps of:

cutting the extruded profile section into lengths in the press flow by the mechanical action of a saw, and

supporting the extruded profile section on a support means during cutting to prevent deformation of the extruded profile resulting from the force exerted on the extruded profile section while it is being cut into lengths, such deformation being prevented by the support means bearing on the extruded profile section during cutting,

the extruded profile section being made of an aluminum alloy or a magnesium alloy and having a temperature in the range of 200°C to 600°C while it is being cut into lengths.

2. A method according to claim 1, wherein the extruded profile section has a temperature in the range of 500°C to 600°C while it is being cut into lengths.

3. A method according to claim 1, wherein the saw is guided on a guide tool.

4. A method according to claim 3, wherein the saw is braced on the guide tool.

5. A method according to claim 3, wherein the guide tool is braced on the saw.

6. A method according to claim 1, wherein the saw is dimensioned such that the entire cross section of the extruded profile section is overlapped by its cutting depth.

7. A method according to claim 1, wherein the saw is equipped with a means of compensating for play in a pressure direction.
8. A method according to claim 1, wherein the saw is moved together with the extruded profile section during the cutting step.
9. A method according to claim 1, wherein the guide tool is a robot, with a robot arm that is controlled according to the movement and/or curvature of the extruded profile section.
10. A method according to claim 9, wherein the saw is positioned by the robot arm in a selectable position close to the extruded profile section.
11. A method according to claim 9, wherein the feed of the saw takes place relative to a guide device that moves together with the robot arm.
12. A method according to claim 11, wherein the feed of the saw relative to the robot arm takes place in one dimension.
13. A method according to claim 1, wherein during the cutting step, the speed of extrusion of an extruded profile section made of an aluminum alloy ranges from 10 to 30 m/min.
14. A method according to claim 13, wherein the speed of extrusion is approximately 25 m/min.
15. A method according to claim 1, wherein during the cutting step, the speed of extrusion of an extruded profile section made of a magnesium alloy ranges from 1 to 5 m/min.

16. A method according to claim 15, wherein the speed of extrusion ranges from 2 to 3 m/min.

17. A method according to claim 1, wherein a parting time during the process of cutting of the extruded profile section is at most 4 seconds.

18. A method according to claim 17, wherein the parting time during the process of cutting is approximately 2 seconds.

19. A method according to claim 1, wherein when extruded profile sections of different cross sections are being cut into lengths, the rate of metal removal during the cutting processes is substantially the same.